

|           |                                |                                      |
|-----------|--------------------------------|--------------------------------------|
| <b>1.</b> | <b>Field of study</b>          | <b>Applied Geology</b>               |
| 2.        | Faculty                        | Faculty of Natural Sciences          |
| 3.        | Academic year of entry         | 2025/2026 (winter term)              |
| 4.        | Level of qualifications/degree | first-cycle studies (in engineering) |
| 5.        | Degree profile                 | general academic                     |
| 6.        | Mode of study                  | full-time                            |

|                                                                                   |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>7.</b>                                                                         | <b>General information about the module</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Module name</b>                                                                |                                             | <b>Palaeontology</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Module code                                                                       |                                             | W2-GS-S1-404                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Number of the ECTS credits                                                        |                                             | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Language of instruction                                                           |                                             | Polish                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Purpose and description of the content of education                               |                                             | Moduł Paleontologia przedstawia studentowi terminologię, procesy i metody badawcze w zakresie naturalnej historii organizmów żywych. Nacisk jest położony na umiejętność rozróżniania głównych grup skamieniałości. Nabyta wiedza powinna umożliwić studentowi rozpoznawanie najważniejszych kopalnych organizmów, a także określanie pozycji stratygraficznej, paleoekologicznej i biogeograficznej typowych formacji osadowych fanerozoiku Polski. |
| List of modules that must be completed before starting this module (if necessary) |                                             | not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| <b>8.</b>      | <b>Learning outcomes of the module</b>                                                                                                                                                                                 |                                    |                                |  |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------|--|
| Code           | Description                                                                                                                                                                                                            | Learning outcomes of the programme | Level of competenc (scale 1-5) |  |
| W2-GS-S1-404_1 | zna najważniejsze grupy pierwotniaków, roślin i zwierząt występujące w stanie kopalnym w fanerozoiku, ich morfologię oraz zasięgi stratygraficzne; zna również podstawy podziału i nazewnictwo tabeli stratygraficznej | 1GS_W1<br>1GS_W6                   | 3<br>4                         |  |
| W2-GS-S1-404_2 | potrafi rozróżniać najważniejsze grupy organizmów kopalnych, określać ich elementy morfologiczne oraz zasięgi stratygraficzne                                                                                          | 1GS_U1                             | 3                              |  |
| W2-GS-S1-404_3 | potrafi określać wiek względny skał na podstawie skamieniałości, warunki paleośrodowiskowe, interpretuje zmieniającą się pozycję geograficzną i biogeograficzną Polski w fanerozoiku na podstawie skamieniałości       | 1GS_U1<br>1GS_U11<br>1GS_U6        | 3<br>2<br>2                    |  |
| W2-GS-S1-404_4 | umie manualnie wykonywać rysunki skamieniałości w kilku rzutach                                                                                                                                                        | 1GS_U1                             | 1                              |  |
| W2-GS-S1-404_5 | wykazuje aktywną postawę do poznawania rzeczy nowych i wykorzystywania ich dla wzbogacania własnej wiedzy; stara się uczyć samodzielnie w oparciu o dostępną literaturę, krytycznie oceniając stan własnej wiedzy      | 1GS_K2                             | 3                              |  |
| W2-GS-S1-404_6 | ma świadomość walorów poznawczych, ontologicznych i estetycznych organizmów kopalnych oraz ich ochrony jako źródeł unikatowych, oraz potrzeby ich ochrony                                                              | 1GS_K1<br>1GS_K3<br>1GS_K6         | 3<br>1<br>1                    |  |

| 9. Methods of conducting classes |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Code                             | Category              | Name (description)                                                                                                                                                                                                                                                                                                                                                                                                                             |
| c06                              | Demonstration methods | Demonstration-imitation<br><i>a presentation of a model way of performing specific activities accompanied by a commentary; it aims at triggering imitation activities in an individual or in a group of participants observing the activities of the person teaching the course until the right habit is formed through regular exercise; the demonstration-imitation method is combined with a physical practice of activities/behaviours</i> |
| c07                              | Demonstration methods | Screen presentation<br><i>a presentation of synthetic image content using computer graphics, e.g., a series of slides or other multimedia forms, usually accompanied by a commentary; typical components of a screen presentation include text organized into bulleted points, charts, images and animations, sometimes sound effects or music; a multimedia illustration of course content presented in the form of a projected image</i>     |
| e06                              | Practical methods     | Observation<br><i>also conducted as fieldwork; a method of watching phenomena, objects or people in a systematic/planned way in order to gain knowledge about them; perceptual separation of elements of a model action as an element of learning through imitation; a complex system of cognition based on sensory experiences</i>                                                                                                            |

| 10. Forms of teaching |                    |                 |                                                   |                                                                                                |                               |
|-----------------------|--------------------|-----------------|---------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------|
| Code                  | Name               | Number of hours | Assessment of the learning outcomes of the module | Learning outcomes of the module                                                                | Methods of conducting classes |
| W2-GS-S1-404_I_1      | laboratory classes | 24              | course work                                       | W2-GS-S1-404_1, W2-GS-S1-404_2, W2-GS-S1-404_3, W2-GS-S1-404_4, W2-GS-S1-404_5, W2-GS-S1-404_6 | c06, c07, e06                 |
| W2-GS-S1-404_w_1      | lecture            | 24              | exam                                              | W2-GS-S1-404_1, W2-GS-S1-404_5, W2-GS-S1-404_6                                                 | c07                           |

| 11. The student's work, apart from participation in classes, includes in particular: |                                                   |                                                                                                                                                                                                                                                                                                                                                            |                         |
|--------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Code                                                                                 | Category                                          | Name (description)                                                                                                                                                                                                                                                                                                                                         | Is it part of the BUNA? |
| a03                                                                                  | Preparation for classes                           | Developing practical skills<br><i>activities involving the repetition, refinement and consolidation of practical skills, including those developed during previous classes or new skills necessary for the implementation of subsequent elements of the curriculum (as preparation for class participation)</i>                                            | No                      |
| c01                                                                                  | Preparation for verification of learning outcomes | Determining the stages of task implementation contributing to the verification of learning outcomes<br><i>devising a task implementation strategy embracing the division of content, the range of activities, implementation time and/or the method(s) of obtaining the necessary materials and tools, etc.</i>                                            | No                      |
| c02                                                                                  | Preparation for verification of learning outcomes | Studying the literature used in and the materials produced in class<br><i>exploring the studied content, inquiring, considering, assimilating, interpreting it, or organizing knowledge obtained from the literature, documentation, instructions, scenarios, etc., used in class as well as from the notes or other materials/artifacts made in class</i> | No                      |
| c03                                                                                  | Preparation for verification of learning outcomes | Implementation of an individual or group assignment necessary for course/phase/examination completion                                                                                                                                                                                                                                                      | No                      |

|  |  |                                                                                                                                                                                                  |  |
|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |  | <i>a set of activities aimed at performing an assigned task, to be executed out of class, as an obligatory phase/element of the verification of the learning outcomes assigned to the course</i> |  |
|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

Information on the details of the module implementation in a given academic year can be found in the syllabus available in the USOS system: <https://usosweb.us.edu.pl>.